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|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/812,945             | LAN-HARGEST ET AL.  |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Shengjun Wang          | 1617                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

The previous elected species are allowable in view of the decision of Board of patent Appeals and interferences. In view the complexity of the remain subject matters, following restriction requirements is necessary.

#### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 2, 4-7, 10, 12, 17, 18, 40-42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein the Y2 is a bond, L is an unsaturated C4 with two double bond optionally substituted with C1-2 alkyl, C6 with three double bonds or C8 with three double bond, X1, X2 together with the carbon attached is a hydroximic acid group, Y1 is CH2, and A is phenyl optionally substituted with alkyl, alkenyl or alkynyl, classified in class 514, subclass 576.
  - II. Claims 1, 2, 4-7, 10, 12, 17, 18, 40-42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein the Y2 is a bond, L is unsaturated carbon chain, other than those defined in group I, X1, X2 together with the carbon attached is a hydroximic acid group, Y2 is CH2, and A is phenyl optionally substituted with alkyl, alkenyl or alkynyl, classified in class 514, subclass 576.
  - III. Claims 1, 2, 4-7, 10, 12, 17, 18, 40-42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein the L is saturated carbon chain, X1, X2 together with the carbon attached is a hydroximic

Art Unit: 1617

acid group, Y2 is CH<sub>2</sub>, and A is phenyl optionally substituted with alkyl, alkenyl or alkynyl, classified in class 514, subclass 576.

- IV Claims 1, 2, 4-7, 10, 12, 17, 18, 40-42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein X<sub>1</sub>, X<sub>2</sub> together with the carbon attached is a hydroximic acid group, and the compound is other than those defined in groups I-III, classified in class 514, subclass 576.
- V Claims 1, 2, 4-7, 10, 12, 17, 18, 40-42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein X<sub>1</sub>, X<sub>2</sub> together with the carbon attached is a carboxylic acid or ester, , classified in class 514, subclass 557.
- VI Claims 1, 3-19, 21, 23-28, 30, 32-34, 36, 38, 42, 44-46 drawn to a method of treating cancer by administering to the patient a compound of formula I, wherein X<sub>1</sub> is sulfur, classified in class 514, subclass 513.
- VII Claims 1-42, 45-46 drawn to a method of treating cystic fibrosis by administering to the patient a compound of formula I, classified in class 514, subclass 513, 556, 576.
- VIII Claims 1-42, 45-46 drawn to a method of wound healing by administering to the patient a compound of formula I, classified in class 514, subclass 513, 556, 576.
- IX Claims 1-42, 45-46 drawn to a method of treating hair growth by administering to the patient a compound of formula I, classified in class 514, subclass 513, 556, 576.

Art Unit: 1617

X Claims 1-42, 45-46 drawn to a method of treating disorders other than those defined above by administering to the patient a compound of formula I, classified in class 514, subclass 513, 556, 576.

XI Claims 43, 47-53 drawn to a method of inhibiting histone deacytylation in cells, not associated with treating a disorder by using a compound of formula I, classified in class 514, subclass 513, 556, 576.

2. Inventions groups (I-X) and group XI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions.

3. Inventions groups (I-VI), VII, VIII, IX and group X are unrelated from each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. Particularly, the methods are directed to treatment of etiology distinct disorders.

4. Inventions groups I-VI are unrelated from each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operations. Particularly, the compounds employed in each of the groups are distinct from each other as to the structural features.

Art Unit: 1617

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (571)272-0632. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.



Shengjun Wang

**SHENGJUN WANG  
PRIMARY EXAMINER**

April 24, 2004